

Figure 1 A

Interleukin 11 Receptor (IL-11R)

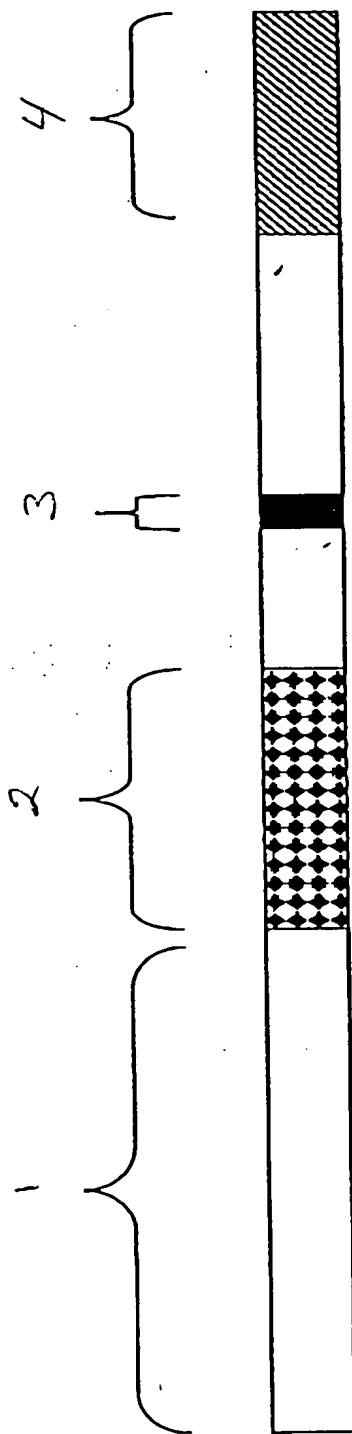


Figure 1 B

cDNA sequence inserted to generate soluble IL-11R

SEQ ID NO. 3

ATGAGCAGC AGCTGCTCAG GGCTGAGCAG GGTCTGGTG GCCGTGGCTA CAGCCCTGGT
GTCTGCCTCC TCCCCCTGCC CCCAGGCCTG GGGCCCCCA GGGGTCCAGT ATGGGCAGCC
AGGGAGGTCC GTGAAGCTGT GTTGTCTGG AGTGACTGCC GGGGACCCAG TGTCCTGGT
TCGGGATGGG GAGCCAAAGC TGCTCCAGGG ACCTGACTCT GGGCTAGGGC ATGAACTGGT
CCTGGCCAG GCAGACAGCA CTGATGAGGG CACCTACATC TGCCAGACCC TGGATGGTG
ACTTGGGGGC ACAGTGACCC TGCAGCTGGG CTACCCTCCA GCCCGCCCTG TTGTCTCCTG
CCAAGCAGCC GACTATGAGA ACTTCTCTTG CACTTGGAGT CCCAGCCAGA TCAGCGGTTT
ACCCACCCGC TACCTCACCT CCTACAGGAA GAAGACAGTC CTAGGAGCTG ATAGCCAGAG
GAGGAGTCCA TCCACAGGGC CCTGGCCATG CCCACAGGAT CCCCTAGGGG CTGCCCCGCTG
TGTTGTCCAC GGGGCTGAGT TCTGGAGCCA GTACCGGATT AATGTGACTG AGGTGAACCC
ACTGGGTGCC AGCACACGCC TGCTGGATGT GAGCTTGCAG AGCATCTTGC GCCCTGACCC
ACCCAGGGC CTGCGGGTAG AGTCAGTACC AGGTTACCCC CGACGCCTGC GAGCCAGCTG
GACATACCCT GCCTCCTGGC CGTGCCAGCC CCACTTCCTG CTCAAGTTCC GTTTCAGTA
CCGTCCGGCG CAGCATCCAG CCTGGTCCAC GGTGGAGCCA GCTGGACTGG AGGAGGTGAT
CACAGATGCT GTGGCTGGG TGCCCCATGC TGTACGAGTC AGTGCCCGGG ACTTTCTAGA
TGCTGGCACC TGGAGCACCT GGAGCCCGGA GGCCTGGGA ACTCCGAGCA CTGGGACCAT
ACCAAAGGAG ATACCAGCAT GGGGCCAGT ACACACGCAG CCAGAGGTGG AGCCTCAGGT
GGACAGCCCT GCTCCTCAA GGCCCTCCCT CCAACCACAC CCTCGGCTAC TTGATCACAG
GGACTCTGTG GAGCAGCTGG TGCCACGCGG TTCTCATCAC CATCATCACC ACTGA

Figure 2

gp 130 binding region

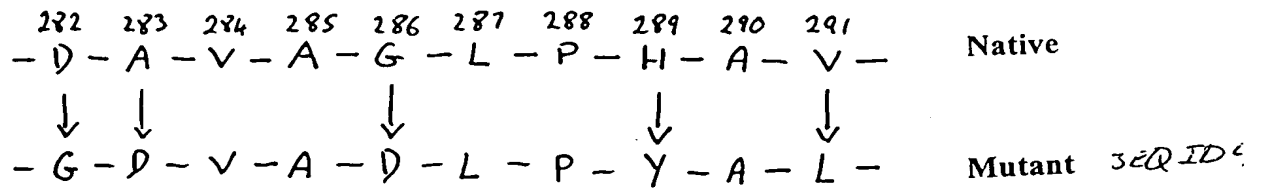


Figure 3

Human Interleukin 11 Receptor Protein Sequence

MSSSCGLSRVLVAATALVSASSPCQAWGPPGVQYGQGRSVKLCCTP
GVTAGDPVSWFRDGEPKLLQGPDSGLGHELVLQAADSTDEGTICQTL
DGALGGTVTLQLGYPPARPVWSCQAADYENFSCWSPSQISGLPTRYLT
SYRKKTVLGADSQRRSPSTGPWPCPDPLGAARCVVHGAEFWSQYRIN
VTEVNPLGASTRLLDVSLQILRPDPQGLRVESVPGYPRRLRASWTYP
ASWPCQPHFLKFRLQYRPAQHPAWSTVEPAGLEEVITDAVAGLPHAV
RVSARDFLDAGTWSTWSPEAWGTPSTGTIPKEPAWGQLHTQPEVEPQV
DSPAPRPSLQPHPRLLDHRDSVEQVAVLASLGILSFLGLVAGALALGL
WLRRRGKDGSPKPGFLASVIPVDRRPGAPNL

** Bolded amino acids:

Human Interleukin 11 Receptor protein sequence that interacts with Interleukin 11

Figure 4

Inhibitory Peptide

Peptide	Peptide Sequence	Antagonistic Activity
1	RRLRASWTYPASWPCQPHFL	yes
2	TYPASWPCQPHFLKFRLLQY	no

SEQ ID NO1

SEQ ID NO2

Figure 5

The Effect of Murine Interleukin-11 on Bone Nodule Formation

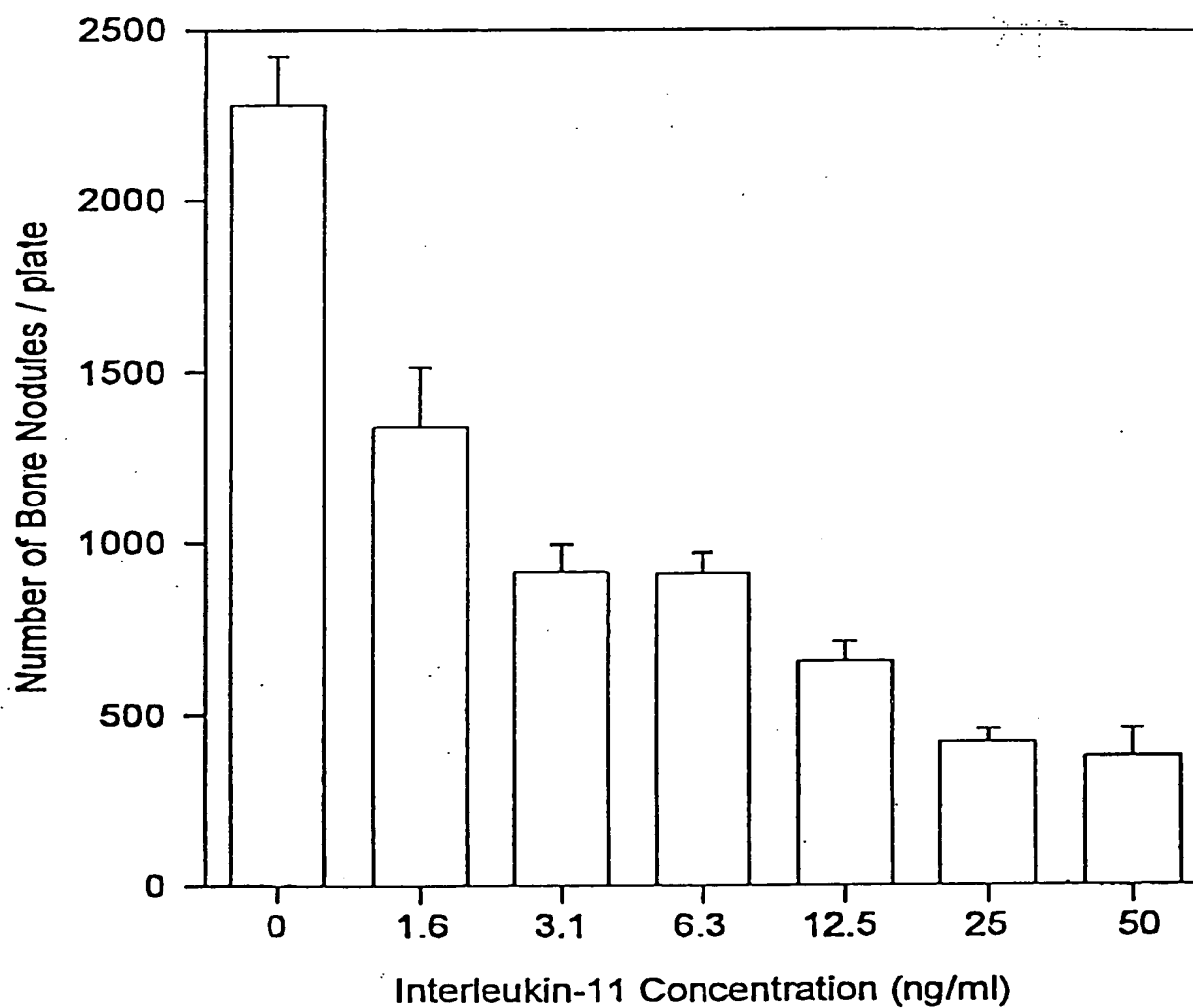


Figure 6 A

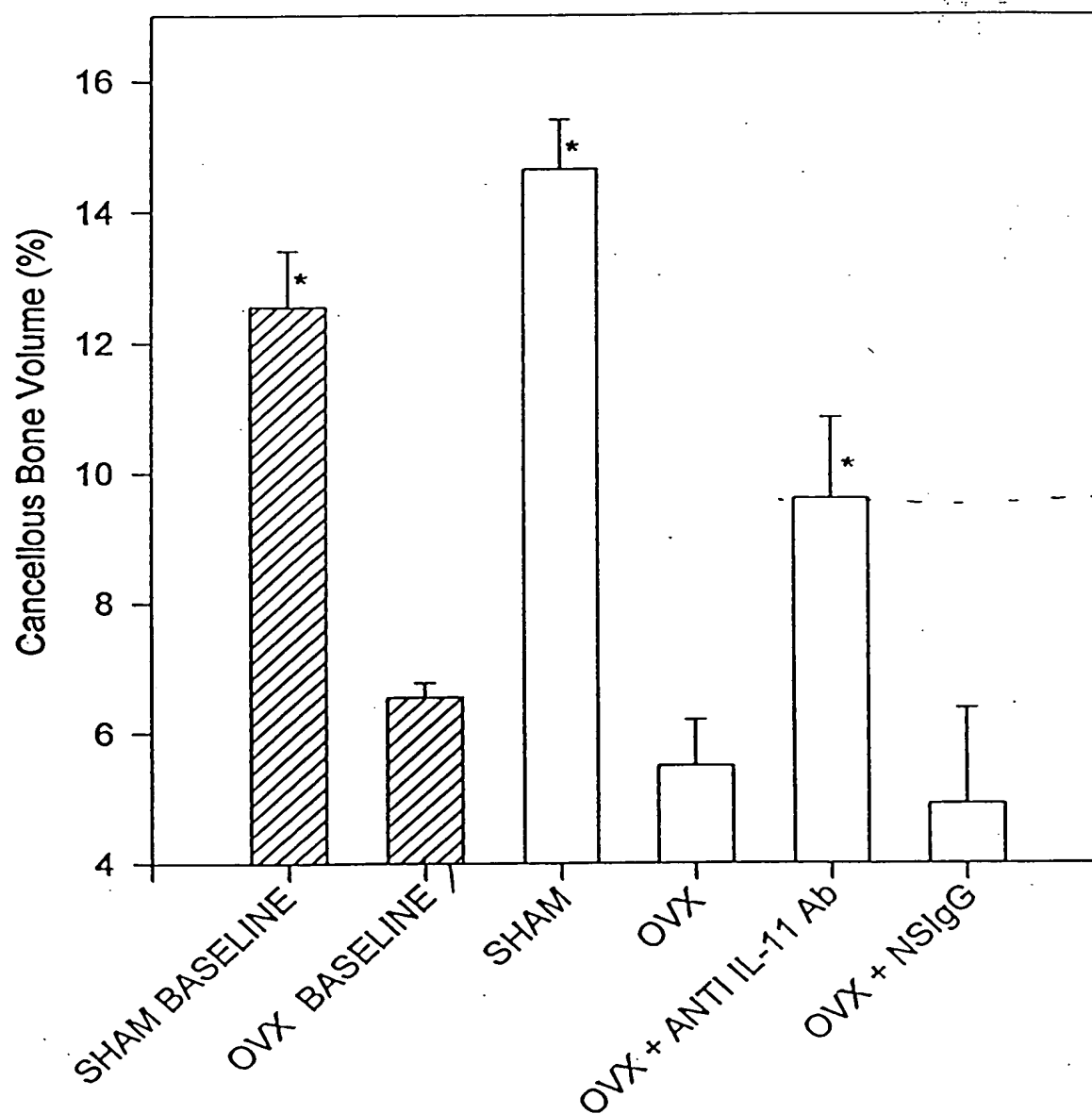


Figure 6 B

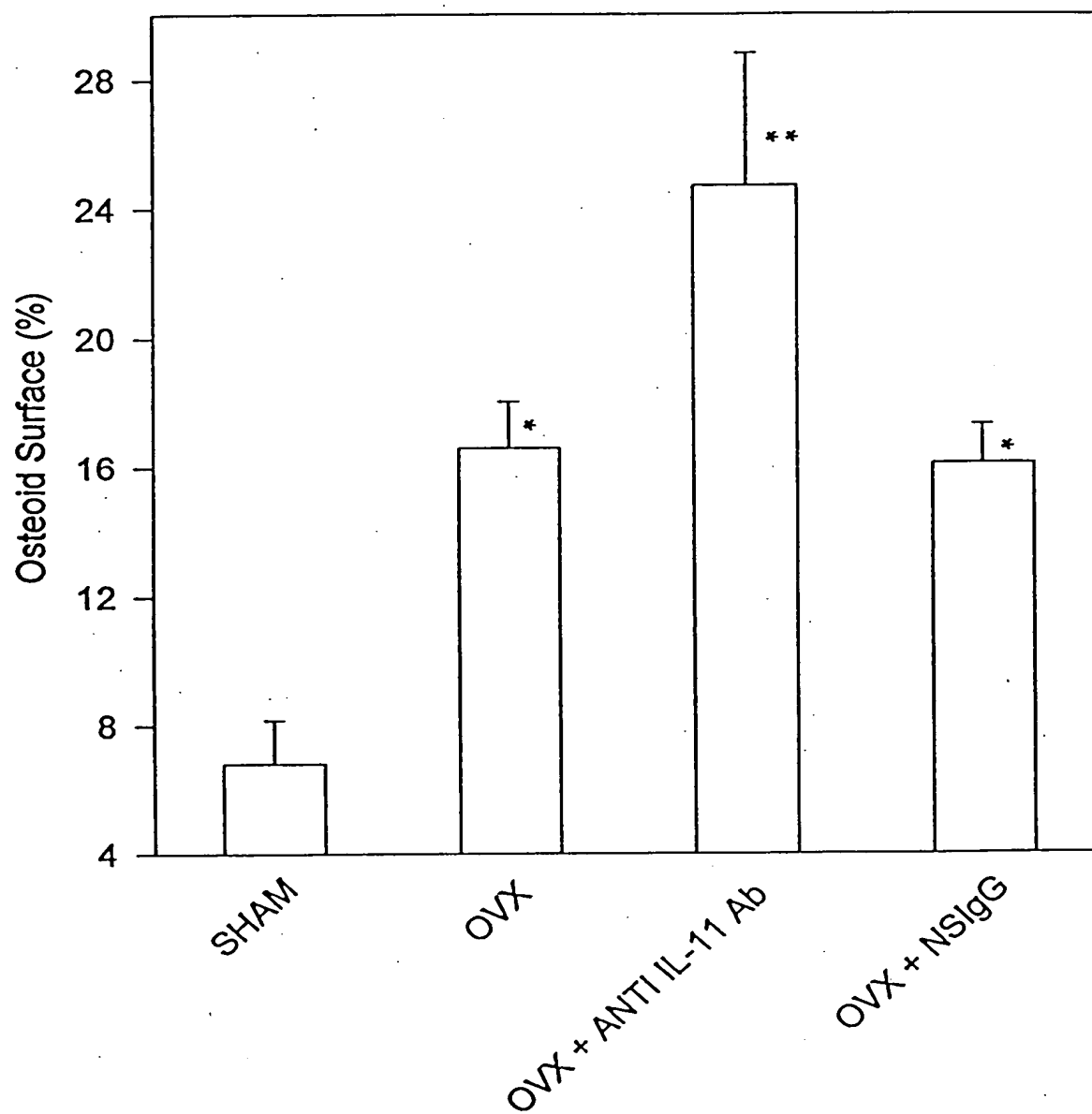


Figure 6 C

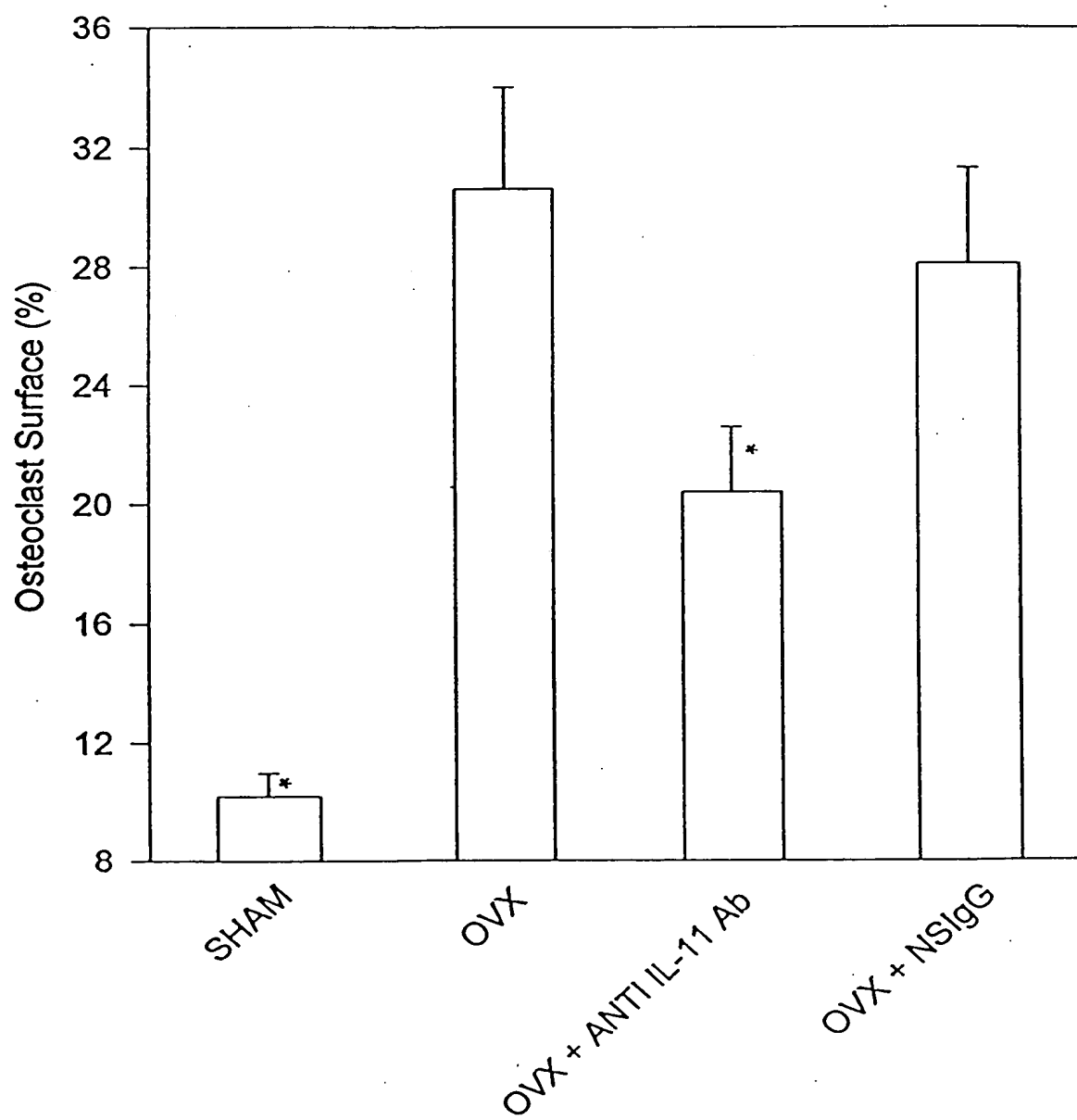


Figure 7 A

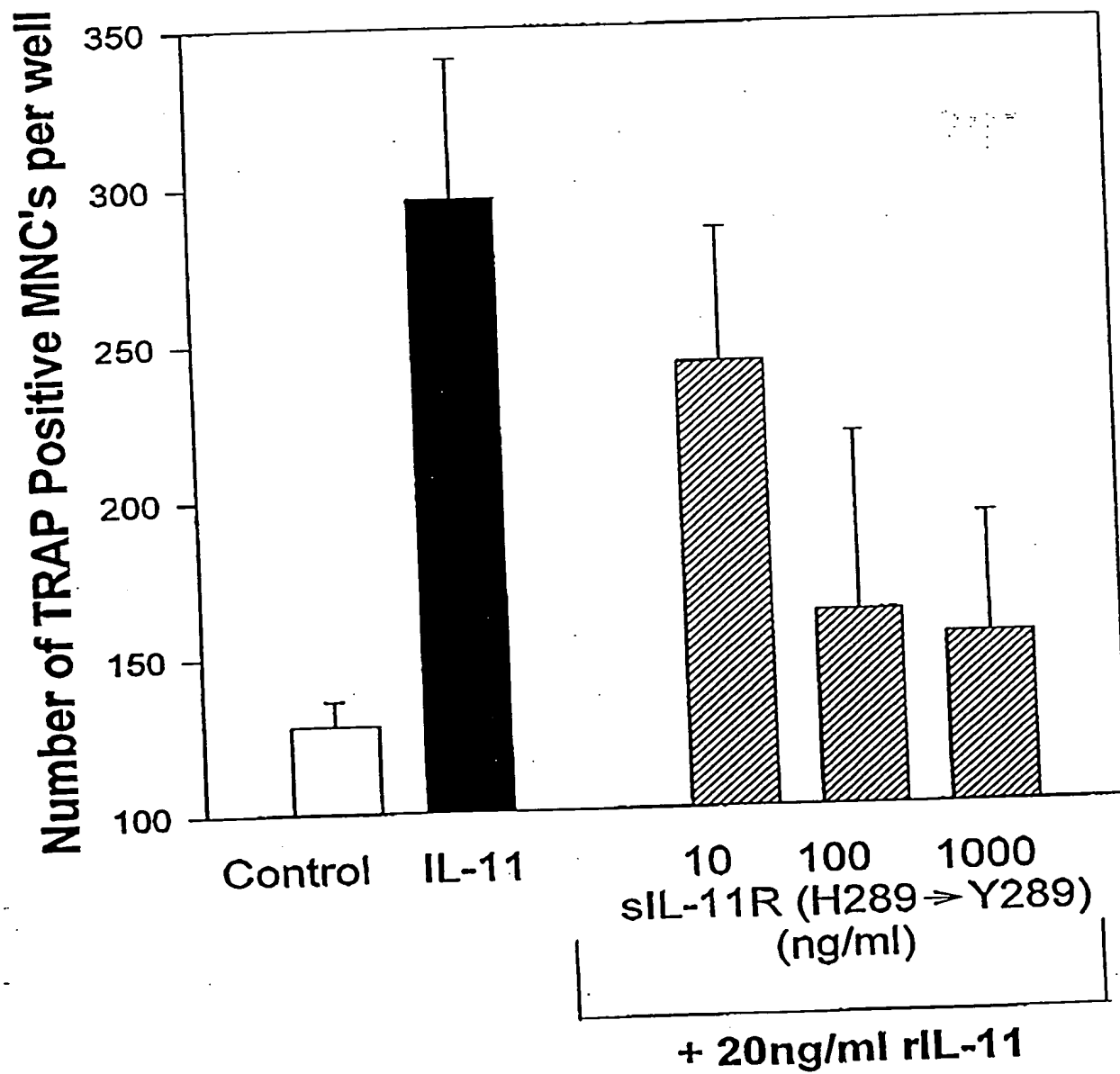


Figure 7 B

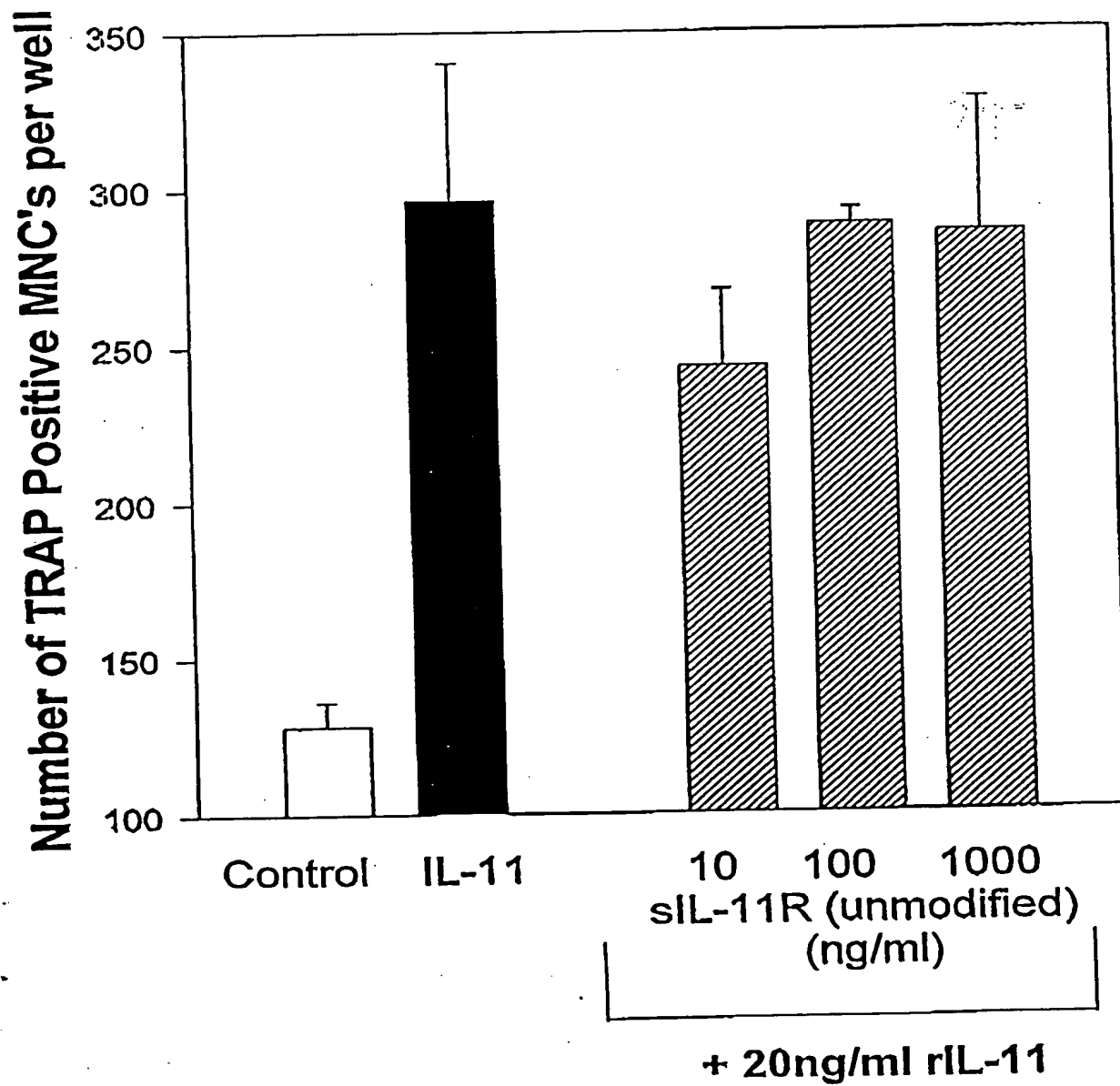


Figure 8

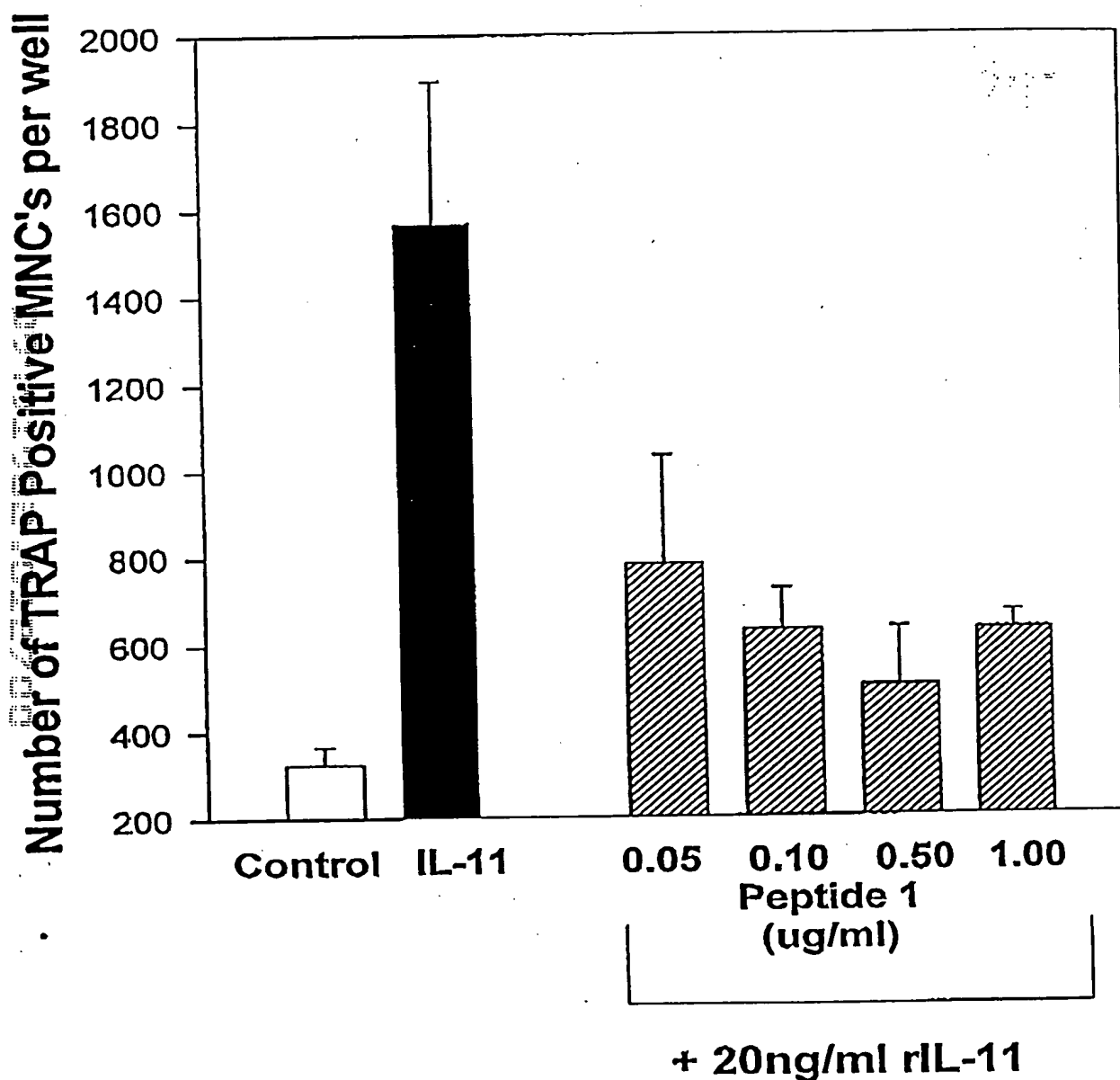


Figure 9

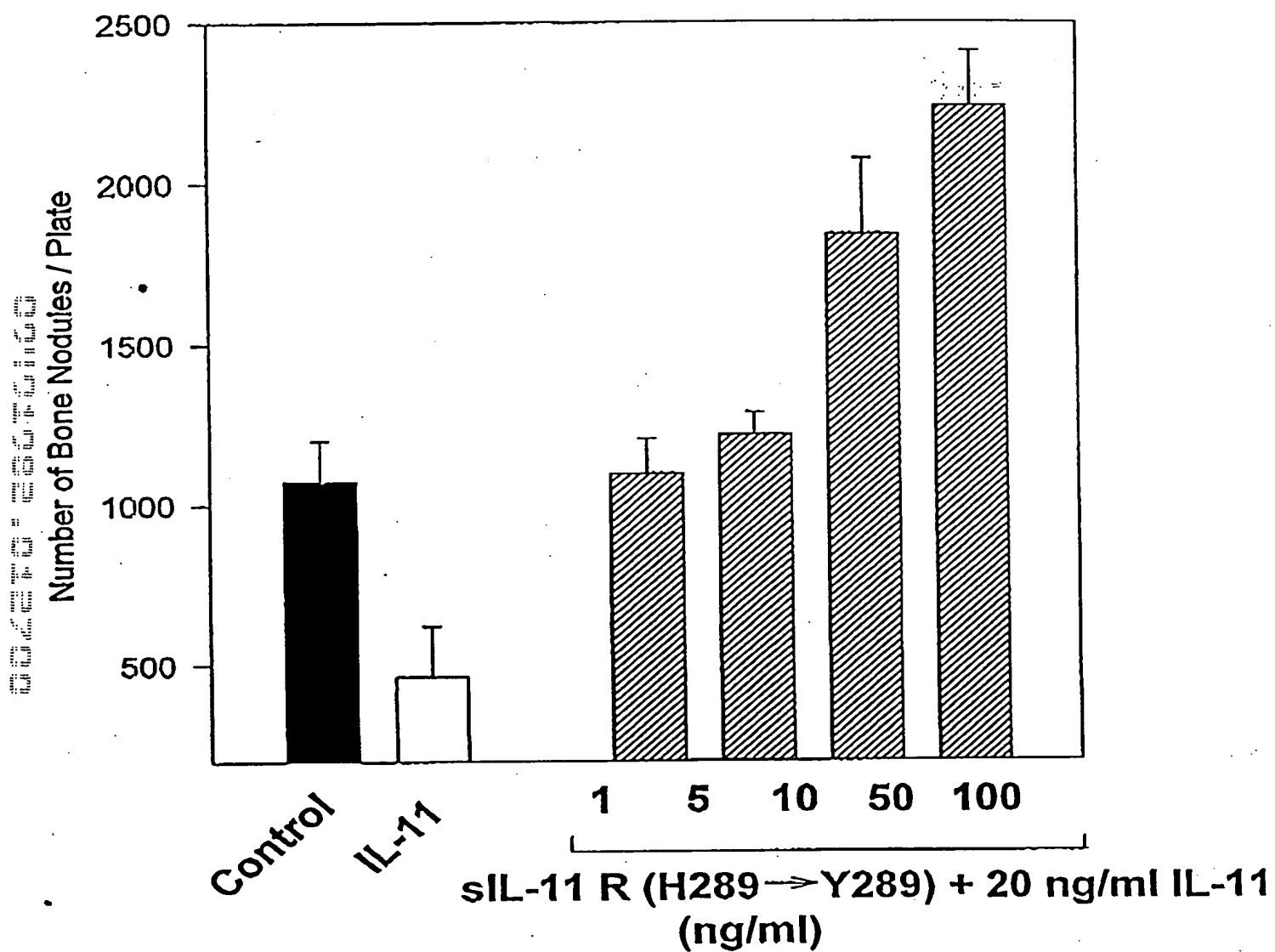


Figure 10

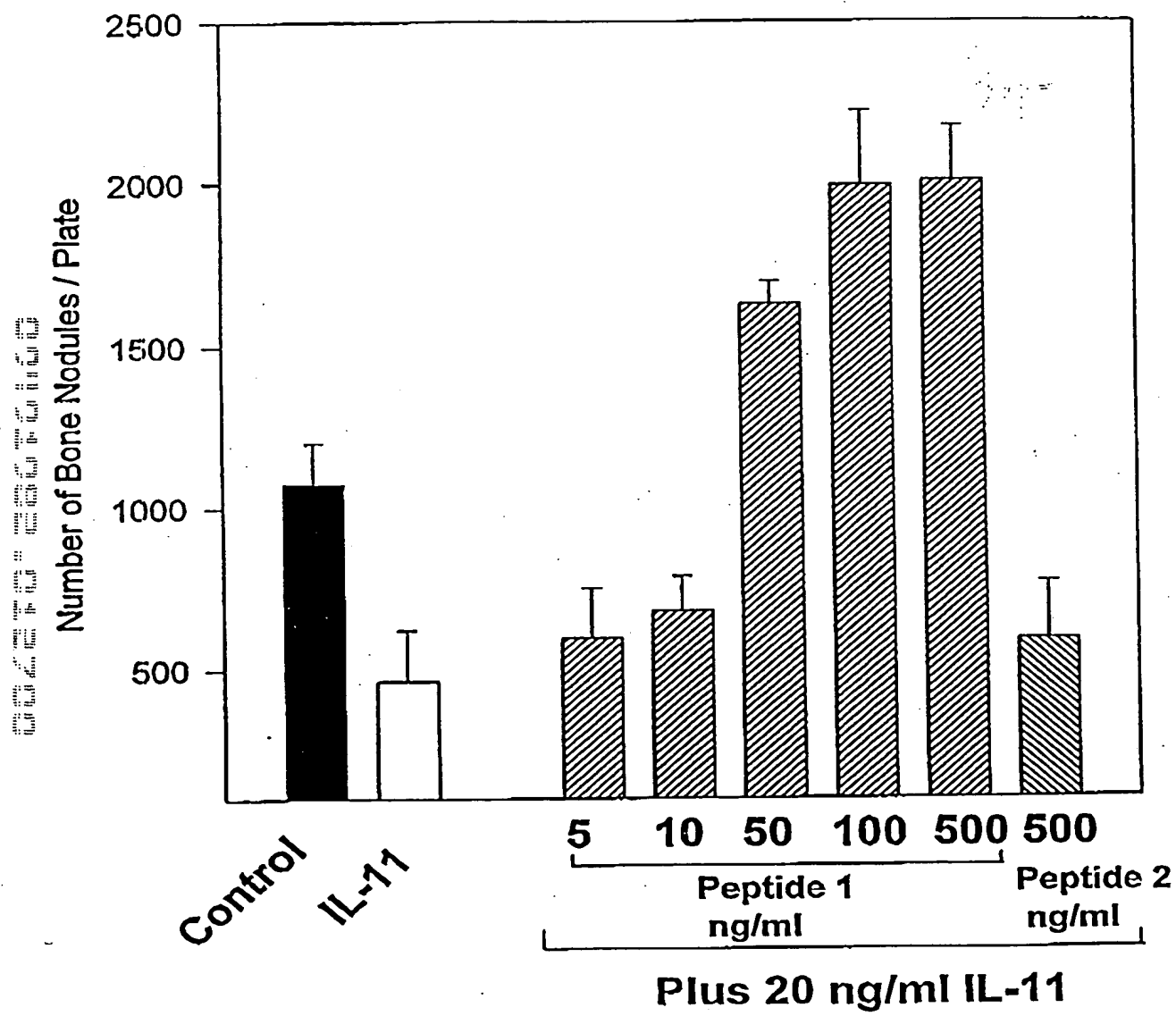


FIGURE 11

Table I

The effect of rIL-11 on the generation of TRAP+ cells in cocultures of murine calvaria and bone marrow cells.

rIL-11 Concentration ng/ml	Number of Trap+ Cells/Well
0.0	0.0 ± 0.0
3.1	1.0 ± 0.5
6.3	26.5 ± 15.8
12.5	140.8 ± 25.2
25.0	273.3 ± 24.0
50.0	395.5 ± 35.6

The effect of IL-11 on osteoclast development in cocultures of murine bone marrow and calvaria cells. Cocultures of marrow and calvaria cells were maintained in the absence or presence of increasing concentrations of IL-11. Nine days later the cells were stained for TRAPase activity and the number of multinucleated TRAP+ cells determined. Data are expressed as mean ± SEM. * $p < 0.05$ when compared with the number of TRAP+ cells counted in the absence of rIL-11.